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ABSTRACT

This paper analyses the influence of age on the acquisition of English as a third language by focusing on the development of general proficiency in English by school children. Participants were 60 secondary school students who had studied English for 6 years but started learning it at different ages. All participants completed a battery of tests and questionnaires including different measures of proficiency in English: story telling, listening comprehension, composition, and grammar. The results show differences between older and younger students. These differences are discussed in reference to the existing research on the age factor in second language acquisition. The results indicate that the younger group obtained lower scores in different aspects of language proficiency than the older group. Older students had generally higher scores in all categories, much higher in some areas (composition and grammar), but scored lower than the younger students in pronunciation. (Contains 18 references.) (KFT)

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THE INFLUENCE OF AGE ON THE ACQUISITION OF ENGLISH AS A THIRD LANGUAGE

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This paper analyses the influence of age on the acquisition of English as a third language by focusing on the development of general proficiency in English by school children. Participants were 60 secondary school students who had studied English for six years but had started learning English at different ages. All the participants completed a battery of tests and questionnaires including different measures of proficiency in English: story telling, listening comprehension, composition, grammar.The results show differences between older and younger students and these differences are discussed as related to research on the age factor in second language acquisition.

1. INTRODUCTION

The influence of age on second language acquisition is a controversial area which has received much attention in SLA research (Singleton 1989, Long, 1990, Singleton & Lengyel, 1995; Harley, 1986; White & Genesee, 1996). Most studies on the effect of age on second language acquisition in formal settings indicate that older learners make more progress or that there are no differences between early and late starters when both groups have been mixed for some time (Burstall et al, 1974; Ekstrand, 1976; Oller & Nagato, 1974). Nevertheless, those findings do not necessarily confirm the advantages of older students and as Singleton (1995) suggests they can be due to the 'blurring effect resulting from mixing beginners and non-beginners in the same classes' (Singleton 1995, 2). These results may also be due to the fact that research studies in this area are usually conducted after limited exposure and may not give early starters enough time to show their advantages. Studies in naturalistic settings indicate that older learners present advantages in the first stages of second language acquisition but that these advantages disappear in the long run (Snow & Hoefnagel-Höhle, 1977).

The recent trend to start teaching foreign languages from a very early age implies that in some bilingual communities children have contact with more than two languages form a very early age. Even though research on the effect of age in

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multilingual acquisition is still very limited (Cenoz & Genesee, 1998), it can have important psycholinguistic and educational implications: i) it can contribute to the theoretical debate on the age question in second language acquisition; ii) it can also contribute to the area of third language acquisition and trilingualism and iii) it has implications for language planning particularly when the foreign language is introduced from an early age but there is not enough research to confirm the possible advantages of this early introduction.

This paper is based on a longitudinal project on the linguistic development of English as a third language at different ages in the Basque Country. Specifically, it analyses the influence of the age of introduction of English on general proficiency in English when students are in their sixth year of English. This program has Basque as the language of instruction (D model) and it serves both as a total immersion program for students whose first language is Spanish and a first language maintenance program for students whose first language is Basque. English is taught as a third language to all the students and traditionally, the English language was introduced in grade 6 (11 years old) and when the Spanish Educational Reform was implemented in 1993 foreign languages were introduced in the third grade when children are 8 years old.

2. METHOD

2.1. Sample

Participants were 60 elementary and secondary students (48.3% male; 51.7% female) in a Basque school in the province of Gipuzkoa. Students used Basque and/or Spanish at home but Basque was the main language of communication at school and the language of instruction for all subjects except Spanish and English language arts. Basque was the only language used at home for 38% the students, Spanish was the home language for 23% of the students and the rest of the students (39%) used both Basque and Spanish at home. All the students were exposed to Spanish, the majority language at the community level, and also studied Spanish as a school subject.

All the participants in this study were in their sixth year of English but they were divided into two groups according to their grade: students in 2nd year of ESO had a mean age of 13.1 and students in 1st year of Bachillerato had a mean age of 16.2.

TABLE 1		
	2nd ESO	1st Bach
Age	13.1	16.2
Years of English	6	6
Hours of English	564	564

2.2 Instruments and procedure

All the participants filled in a battery of English oral and written tests and a background questionnaire.

The oral tests included the picture story *'Frog, where are you?* (Mayer, 1969) and another story the participants had used in their classes. The frog story consists of 24 pictures and it has been used in a large number of contexts with different languages both with children and adults (Berman & Slobin, 1994). Several corpora of oral productions based on this story are also part of the Childes project data base (MacWhinney, 1991).

The second story was different for the two age grups: *'Wallace and Gromit'* was the story chosen for 2nd year of ESO and the film *'Sleepless in Seattle'* for 1st year of bachillerato.

The stories were recorded, transcribed and analysed in order to examine different aspects of oral production. First, the number of tokens, types, utterances and words per utterance produced by the three age groups when re-telling the two stories were obtained. Then an overall evaluation of the oral production including pronunciation, vocabulary, grammar, fluency and content was carried out.

Students also completed a listening comprehension test, (36 points); a cloze test (34 points); a grammar test (31 points) and a composition. In the composition students were asked to write a letter to an English family. The composition was

graded according to Jacobs et al.'s (1981) holistic approach by using scales corresponding to content, organization, vocabulary, language use and mechanics (100 points).

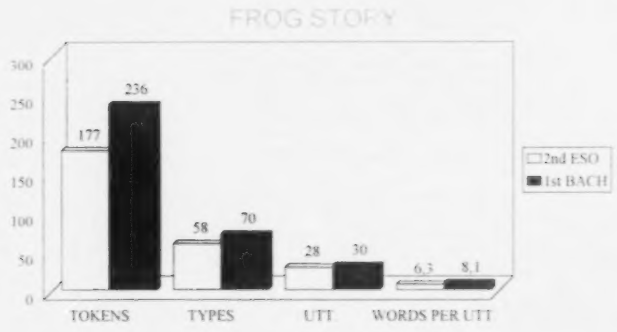
Once the results of the tests were codified and the oral tests were fully transcribed analyses were conducted by using the Childes Clan program for the oral tests and the SPSS statistical package.

3. RESULTS

3.1. Frog story

Figure 1 includes the results of the T-tests comparing the number of tokens, types, utterances and words per utterance for the two age groups:

FIGURE 1



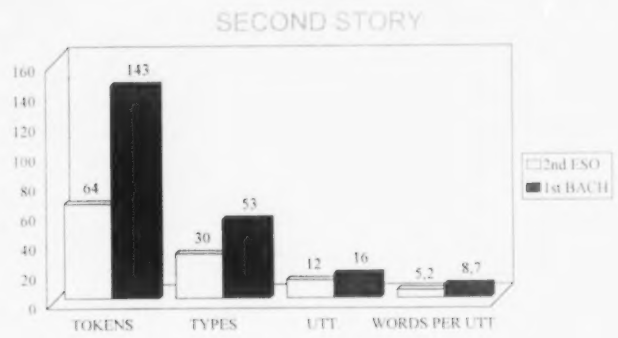
The results indicate that there are significant differences when the mean number of tokens (T=-2.39, S=.02), and types (T=-2.52; S=.01) corresponding to the two age groups are compared. When the number of utterances is considered, no overall significant differences were observed but the results indicate that there are significant differences in the number of words per utterance used by the different

groups (T=-4.78, S=.00). Therefore, in three of the four analyses older students obtained significantly higher scores than younger students.

3.2. Second Story

The results of the analyses of variance corresponding to the stories used in class with the two age groups are presented in figure 2.

FIGURE 2

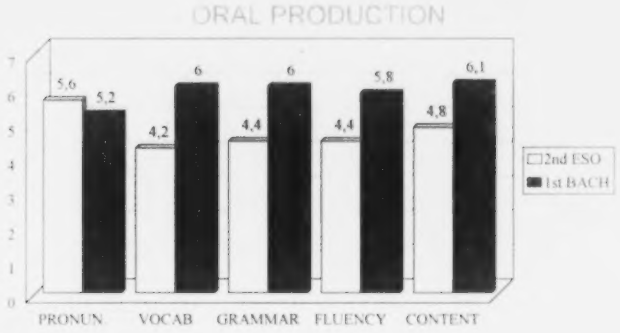


The results indicate that there are significant differences in the four analyses: tokens (T=-6.39, S=.00), types (T=-6.20; S=.00), utterances (T=-3.21, S=.00) and words per utterance (T=-10.01, S=.00). In all cases older students obtained significantly higher scores than younger students.

3.3. Overall evaluation of oral proficiency

The results of the T-tests corresponding to the overall evaluation of the students' oral production are presented in figure 3. The five scales used were pronunciation (max=10), vocabulary (max=10), grammar (max=10), fluency (max=10) and content (max=10):

FIGURE 3

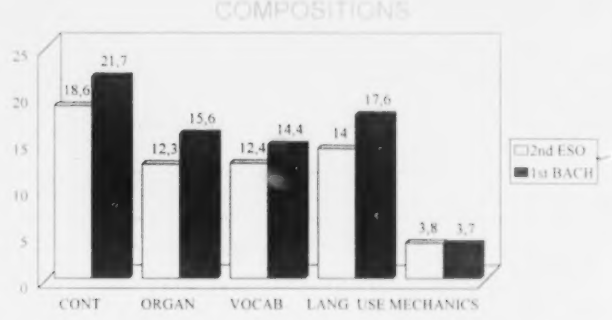


The results indicate that the differences between the means are significant for vocabulary (T=-5.66, S=.00), grammar (T=-5.15; S=.00), fluency (T=-4.75, S=.00) and content (T=-4.10, S=.00). In four of the five bands the results corresponding to the older group are significantly higher than those corresponding to the 2nd of ESO. In pronunciation younger students obtained significantly higher results than older students (T=2.41, S=01). The overall results indicate that older students obtained higher scores (T=-4.54, S=.000).

3.4. Compositions

The bands used for scoring compositions were the following: content (min=13; max=30), organization (min=7; max=20), vocabulary (min=7; max=20), language use (min=13; max=30) and mechanics (min=13; max=30). The results corresponding to the three groups are given in figure 4:

FIGURE 4



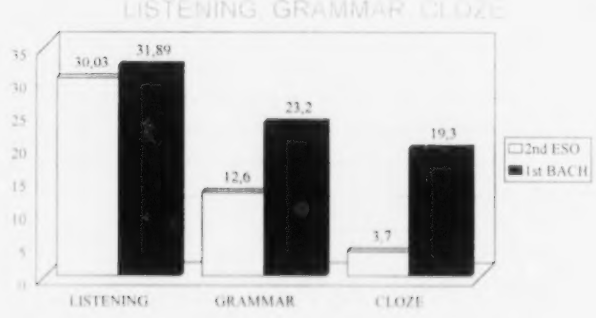
The results of the T-Tests indicate that there are significant differences between the two groups in four of the five scales: content (T=-4.85, S=.00), organization (T=-8.78; S=.00), vocabulary (T=-6.51, S=.00); language use (T=-6.50, S=.00). In these four scales older students obtained significantly higher scores than younger students. There are no significant differences between the two groups regarding mechanics of writing (T=.60, S=.55).

The overall results of written production indicate that the differences between the means obtained by the two groups (2nd of ESO= 61.3; 1st ob Bachillerato 11=73.1) are significant (T=-6.52, S=.00).

3.5. Other tests

The results of the T-Tests corresponding to listening comprehension, grammar test and the cloze test are given in figure 5.

FIGURE 5



The results indicate indicate that the differences between the two groups are only marginally significant in the case of listening comprehension (T=-1.74, S=.08)

and significant in the test of grammar (T=-7.36, S=.000) and the cloze test (T=-10.36; S=.000). In all cases older students obtained higher results.

DISCUSSION

The results indicate that the younger group obtained lower results in different aspects of language proficiency than the older group. In fact, the younger group obtained significantly lower scores in most of the analyses corresponding to the frog story, the second story, overall oral proficiency, composition, cloze test and grammar. The younger group only obtained significantly higher scores than the older group in pronunciation and there were no significant differences (or marginally significant differences) between the two groups in the total number of utterances in the frog story, mechanics of writing and listening comprehension. These results indicate that students who started learning English in grade 6 (11 years old) present a higher degree of proficiency in English than students who have been exposed to the same number of hours of instruction but started learning English in grade 3 (8 years old).

This study confirms the poor results obtained by young students in educational settings in previous studies (Burstall et al, 1974; Ekstrand, 1976; Oller & Nagato, 1974; Muñoz, 2000) and the lowest scores obtained by the younger group could be due to several reasons:

1. The differences observed in this study could be due to differences in cognitive maturity which can explain the higher linguistic development of the older group and their more highly developed test-taking strategies.
2. The differences observed could also be related to the type of input (see also Harley, 1986). The oral-based approach used with younger students could explain their better results in pronunciation and the fact that the differences between the two groups are only marginally significant in the case of listening comprehension. The more traditional approaches used with older learners could explain the higher lexical and syntactic complexity of their production and their higher scores on written tests. Older learners are also more likely to benefit from exposure to English outside the school.
3. An alternative interpretation is that younger learners do not present advantages because they are still in the first stages of third language acquisition and as it is the

case in SLA in natural settings the advantages of older students could disappear in the long run (Snow & Hoefnagel-Höhle, 1977).

4. Other possible explanations for these results are related to multilingual acquisition. Previous studies on the introduction of English as a third language at an earlier age in kindergarten (Cenoz, 1997) have indicated that it has no negative cognitive or linguistic effects. Nevertheless, it could be speculated that third language learners need to acquire a higher degree of Cognitive Academic Language Proficiency (Cummins, 2000) in the two languages they already know in order to benefit from the positive effects of bilingualism on third language acquisition. The older group has formally studied Basque and Spanish for three more years than the younger group and their higher development in these languages could help them to benefit from additive bilingualism.

The fact that older students present better results does not necessary mean that teaching English to younger students is not effective as younger children will probably benefit from longer exposure to the language in the curriculum and in the future they are likely to benefit from the effects of additive bilingualism on third language acquisition. Even though the possible explanations of the results presented here need further investigation this study provides information about the linguistic development of children who started English as a third language at different ages. The longitudinal data that are being collected will provide more information about the specific aspects of language development for these two age groups.

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